



Reach for the Sky

Supporting our children to aim high!

# St Mary's CE School

## Maths Support Resources

Parents often ask us, how can I help my child in maths? Firstly, we provide parents with the expectations for each year to enable them to appreciate the standard required by the end of a school year. The next step is to share with parents, what this really looks like in practice. 'Reach for the Sky' is our initiative to support parents by providing them with information about how to do the calculations required in each class. Each year group is provided with information about what this looks like with visual reminders if you are not sure. These are available on our school website and handed out to all families at the beginning of the year.

We are always happy to discuss this with you; the resources hopefully provide a starting point to supporting your child.

# Stage 2 PROMPT sheet

## 1 Know the 2, 3, 5, 10 times tables

|    |   |   |   |    |
|----|---|---|---|----|
| 0  | x | 2 | = | 0  |
| 1  | x | 2 | = | 2  |
| 2  | x | 2 | = | 4  |
| 3  | x | 2 | = | 6  |
| 4  | x | 2 | = | 8  |
| 5  | x | 2 | = | 10 |
| 6  | x | 2 | = | 12 |
| 7  | x | 2 | = | 14 |
| 8  | x | 2 | = | 16 |
| 9  | x | 2 | = | 18 |
| 10 | x | 2 | = | 20 |
| 11 | x | 2 | = | 22 |
| 12 | x | 2 | = | 24 |

|    |   |   |   |    |
|----|---|---|---|----|
| 0  | x | 5 | = | 0  |
| 1  | x | 5 | = | 5  |
| 2  | x | 5 | = | 10 |
| 3  | x | 5 | = | 15 |
| 4  | x | 5 | = | 20 |
| 5  | x | 5 | = | 25 |
| 6  | x | 5 | = | 30 |
| 7  | x | 5 | = | 35 |
| 8  | x | 5 | = | 40 |
| 9  | x | 5 | = | 45 |
| 10 | x | 5 | = | 50 |
| 11 | x | 5 | = | 55 |
| 12 | x | 5 | = | 60 |

|    |   |    |   |     |
|----|---|----|---|-----|
| 0  | x | 10 | = | 0   |
| 1  | x | 10 | = | 10  |
| 2  | x | 10 | = | 20  |
| 3  | x | 10 | = | 30  |
| 4  | x | 10 | = | 40  |
| 5  | x | 10 | = | 50  |
| 6  | x | 10 | = | 60  |
| 7  | x | 10 | = | 70  |
| 8  | x | 10 | = | 80  |
| 9  | x | 10 | = | 90  |
| 10 | x | 10 | = | 100 |
| 11 | x | 10 | = | 110 |
| 12 | x | 10 | = | 120 |

|    |   |   |   |    |
|----|---|---|---|----|
| 0  | x | 3 | = | 0  |
| 1  | x | 3 | = | 3  |
| 2  | x | 3 | = | 6  |
| 3  | x | 3 | = | 9  |
| 4  | x | 3 | = | 12 |
| 5  | x | 3 | = | 15 |
| 6  | x | 3 | = | 18 |
| 7  | x | 3 | = | 21 |
| 8  | x | 3 | = | 24 |
| 9  | x | 3 | = | 27 |
| 10 | x | 3 | = | 30 |
| 11 | x | 3 | = | 33 |
| 12 | x | 3 | = | 36 |

### Count in 10s

|      |       |
|------|-------|
| tens | units |
| 3    | 7     |

Counting up in tens this digit changes:

37 47 57 67 77 87

### 2 Place value

|      |       |
|------|-------|
| tens | units |
| 2    | 8     |

**28** means **2 tens** and **8 units** (ones)  
**20** and **8**

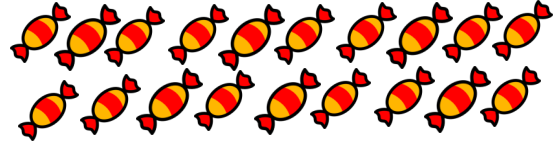
### 3 Estimate numbers

- Eyeball estimate



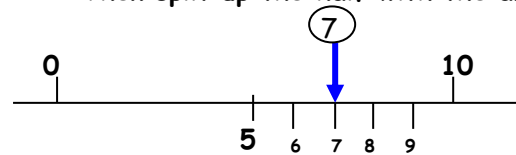
Here are  
3 sweets

### Use this to estimate larger amounts



- Estimate on a number line

Fill in the half way number first  
Then split up the half with the arrow



### 4 Order numbers

| Ten | Unit |
|-----|------|
| 3   | 7    |
| 3   | 2    |
| 7   | 6    |
| 6   | 2    |



- ◆ Begin at the tens and compare

76 is the biggest

62 is next biggest

| Ten | Unit |
|-----|------|
| 3   | 7    |
| 3   | 2    |
| 7   | 6    |
| 6   | 2    |

- ◆ Move to the units and compare

Order is: 76 62 37 32

#### 4 (continued) Inequality symbols



We say: 9 is bigger than 5

We write: 9 > 5

We say: 5 is smaller than 9

We write: 5 < 9

#### 5 Numbers in figures and words

|    |       |    |           |
|----|-------|----|-----------|
| 1  | one   | 11 | eleven    |
| 2  | two   | 12 | twelve    |
| 3  | three | 13 | thirteen  |
| 4  | four  | 14 | fourteen  |
| 5  | five  | 15 | fifteen   |
| 6  | six   | 16 | sixteen   |
| 7  | seven | 17 | seventeen |
| 8  | eight | 18 | eighteen  |
| 9  | nine  | 19 | nineteen  |
| 10 | ten   |    |           |

|    |              |     |             |
|----|--------------|-----|-------------|
| 20 | twenty       | 30  | thirty      |
| 21 | twenty one   | 40  | forty       |
| 22 | twenty two   | 50  | fifty       |
| 23 | twenty three | 60  | sixty       |
| 24 | twenty four  | 70  | seventy     |
| 25 | twenty five  | 80  | eighty      |
| 26 | twenty six   | 90  | ninety      |
| 27 | twenty seven | 100 | one hundred |
| 28 | twenty eight |     |             |
| 29 | twenty nine  |     |             |

#### 6 Addition & subtraction problems

##### Words for ADD

|            |        |       |      |
|------------|--------|-------|------|
| altogether | sum of | total | plus |
|------------|--------|-------|------|

##### Words for SUBTRACT

|                |                |            |
|----------------|----------------|------------|
| take away      | how many left? | difference |
| how many more? | how many less? |            |

#### 7 Addition facts to 10

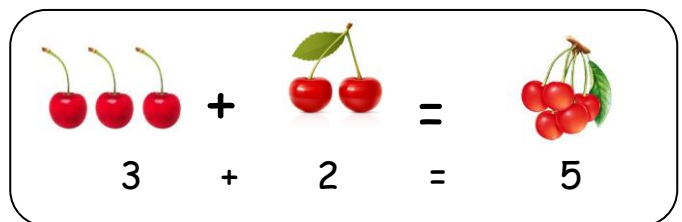
|    |   |   |   |   |   |   |   |   |   |
|----|---|---|---|---|---|---|---|---|---|
| 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 9  | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 | 0 |
| 8  | 7 | 6 | 5 | 4 | 3 | 2 | 1 | 0 | 0 |
| 7  | 6 | 5 | 4 | 3 | 2 | 1 | 0 | 0 | 0 |
| 6  | 5 | 4 | 3 | 2 | 1 | 0 | 0 | 0 | 0 |
| 5  | 4 | 3 | 2 | 1 | 0 | 0 | 0 | 0 | 0 |
| 4  | 3 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3  | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2  | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

|        |       |       |       |       |
|--------|-------|-------|-------|-------|
| 0 + 10 | 1 + 9 | 2 + 8 | 3 + 7 | 4 + 6 |
| 10 + 0 | 9 + 1 | 8 + 2 | 7 + 3 | 6 + 4 |
|        |       | 5 + 5 |       |       |

#### Addition facts to 20

|         |        |        |        |        |
|---------|--------|--------|--------|--------|
| 10 + 10 | 11 + 9 | 12 + 8 | 13 + 7 | 14 + 6 |
| 15 + 5  | 16 + 4 | 17 + 3 | 18 + 2 | 19 + 1 |
|         |        | 20 + 0 |        |        |

#### Subtraction is the inverse of addition



$$5 - 2 = 3$$



$$5 - 3 = 2$$

### 8 Add & subtract

$20 + 8 = 28$

$$\begin{array}{r} 20 \\ + 8 \\ \hline 28 \end{array}$$

$28 - 3 = 25$

$$\begin{array}{r} 28 \\ - 3 \\ \hline 25 \end{array}$$

$28 - 10 = 18$

$$\begin{array}{r} 28 \\ - 10 \\ \hline 18 \end{array}$$

$28 - 13 = 15$

$$\begin{array}{r} 28 \\ - 13 \\ \hline 15 \end{array}$$

### 9 Add & subtract

$7 + 3 = 10$  is the same as  $3 + 7$

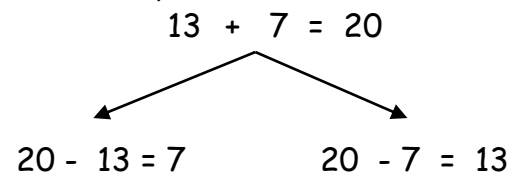


$10 - 7 = 3$  is NOT the same as  $7 - 10$



### 10 Add & subtract

Fact family for add and subtract



### 11. 2, 5, 10 times tables

♦ See 2/1

#### Odds & even numbers

- Even numbers - can be paired up



Tip - the last digit always 0 2 4 6 8

- Odd numbers - cannot be paired up



Tip - the last digit always 1 3 5 7 9

### 12 Multiply & divide

#### Words for MULTIPLY

times

product

double

triple

#### Words for DIVIDE

share

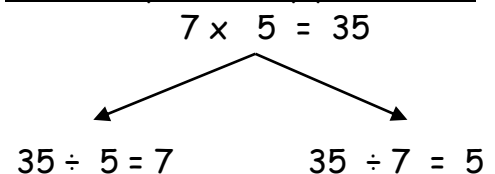
split

#### Words for EQUALS

is

gives

Fact family for multiply and divide



### 13 Multiply & divide

$7 \times 5 = 35$  is the same as  $5 \times 7$



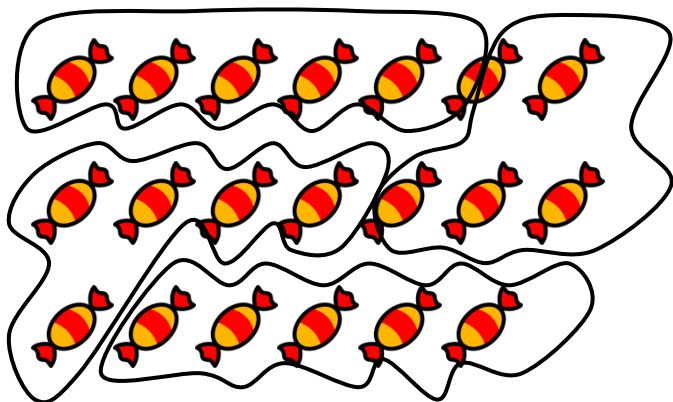
$35 \div 7 = 5$  is NOT the same as  $7 \div 35$



### 14 Multiply & divide

**Example1:** Here are 20 sweets to share  
Each child gets 5 sweets  
How many children are there?

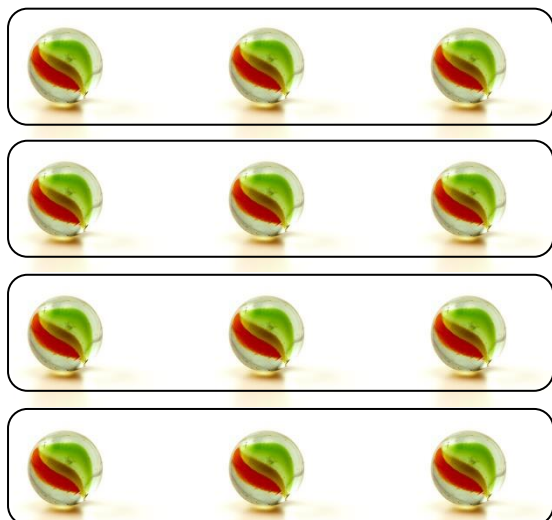
Divide them up into groups of 5 sweets-like this



There must be 4 children

**Example2:** Here are 12 marbles to share  
There are 4 children.  
How many marbles does each get?

Divide them up into 4 groups - like this



Each child gets 3 marbles

### Repeated addition (Multiplication)



Here are 3 footballers.  
How many legs do they have altogether?

|                                      |   |
|--------------------------------------|---|
| Addition sentence<br>$2 + 2 + 2 = 6$ | Multiplication sentence<br>$3 \times 2 = 6$ |
|--------------------------------------|---|

Repeated addition is the same as multiplication

| Addition sentence    | Multiplication sentence |
|----------------------|-------------------------|
| $5 + 5 + 5 + 5 = 20$ | $4 \times 5 = 20$       |
| $10 + 10 + 10 = 30$  | $3 \times 10 = 30$      |

### Repeated subtraction (Division)

Repeated subtraction is the same as division

$$\begin{array}{r} 15 \\ -5 \text{ (1)} \\ \hline 10 \\ -5 \text{ (2)} \\ \hline 5 \\ -5 \text{ (3)} \\ \hline 0 \end{array}$$

This is the same as  
 $15 \div 5 = 3$

Because 5 has been  
subtracted 3 times  
to get to 0

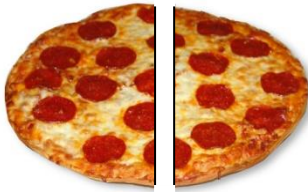


## 15 & 16 Fractions

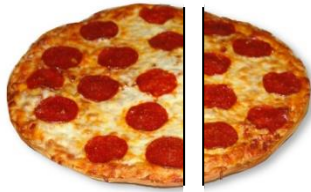
### To work out a half

Split into two equal parts

YES



NO!!!!

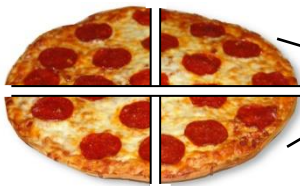


$$10 \text{ sweets} \div 2 = 5 \text{ sweets}$$

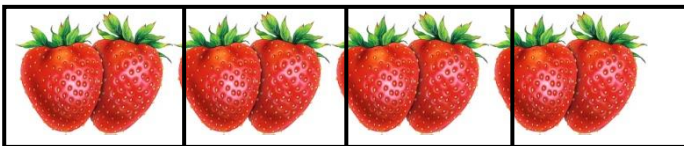
$$\text{OR } \frac{1}{2} \text{ of } 10 = 10 \div 2 = 5$$

### To work out a quarter

Split into four equal parts



$$\frac{2}{4} = \frac{1}{2}$$



$$8 \text{ strawberries} \div 4 = 2 \text{ strawberries}$$

$$\text{OR } \frac{1}{4} \text{ of } 8 = 8 \div 4 = 2$$

## 17 Units of measure

### METRIC units of length are:

Millimetre (mm)



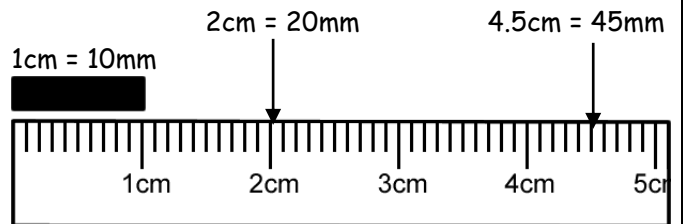
Centimetre (cm)



Metre (m)



Kilometre (km)



- ◆ A big stride is about a metre



- ◆ Distance to Dublin is measured in kilometres



### METRIC units of mass are:

Gram (g)



Kilogram (kg)

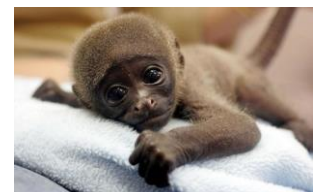


$$1 \text{ kilogram (kg)} = 1000 \text{ grams (g)}$$

- ◆ An apple weighs 150grams



- ◆ Baby chimp weighs 3kg



## 17 Units of measure (continued)

**METRIC units of capacity (liquids) are:**

Millilitre (ml)



Centilitre (cl)



Litre (l)

- ◆ A medicine spoon holds 5ml



- ◆ A 5-litre bucket

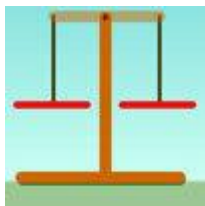


- ◆ Fuel for the car is measured in litres



## 18 Compare units of measure

Think of the units of mass then order:



a bar of chocolate  
your teacher  
a blown-up balloon  
a loaf of bread

A blown-up balloon < a bar of chocolate < a loaf of bread < your teacher

Think of the units of length used then order:



How high you could jump in the air  
How far you can kick a football  
How far you can run in  $\frac{1}{2}$  minute  
Length of a bug

Length of a bug < you could jump in the air < you can kick a football < you can run in half a minute

## 19 Money

To write amounts of money

£3 or £3.00

50p or £0.50

£3.50 or 350p **BUT never £3.50p or £3.5**



### Value of coins

1p or £0.01

2p or £0.02

5p or £0.05

10p or £0.10

20p or £0.20

50p or £0.50

£1 or £1.00

£2 or £2.00

## 20 Bills and change

To add amounts of money

$$\begin{aligned} & 24p + 32p \\ = & 20p + 4p + 30p + 2p \\ = & 20p + 30p + 4p + 2p \\ = & 50p + 6p \\ = & 56p \end{aligned}$$

To find change from £1

### Subtraction method

$$\begin{aligned} & \text{£1} - 56p \\ = & \text{£1} - 50p - 6p \\ = & \underbrace{50p} - 6p \\ = & 44p \end{aligned}$$

### Add-on method

$$\begin{aligned} & 56p + 4p = 60p \\ & 60p + 40p = \text{£1} \\ = & 4p + 40p \\ = & 44p \end{aligned}$$

## 2/21 Sequence of time

Smallest



Largest

Second(s)

Minute(min) 60

Hour(h) 60

Day 24

Week 7

Month 4

Year 12

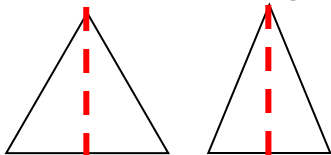
## 22 Write time



The time shown is:  
5 past 6 OR 6:05

## 23 2D shapes

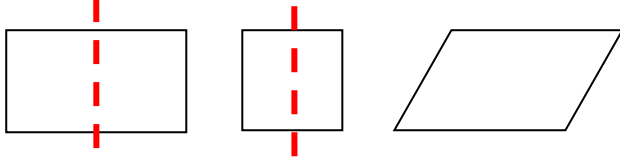
◆ 3 sides - Triangles



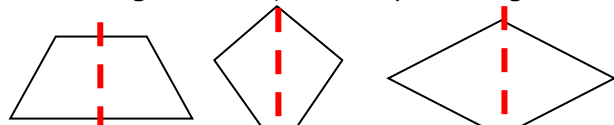
equilateral      isosceles

A vertical line  
of symmetry

◆ 4 sides - Quadrilaterals

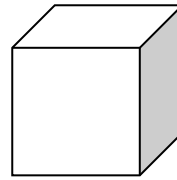


rectangle      square      parallelogram

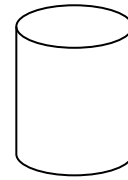


trapezium      kite      rhombus

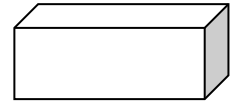
## 2/24 3D shapes



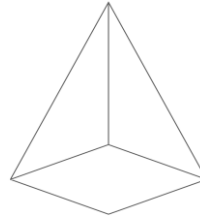
cube



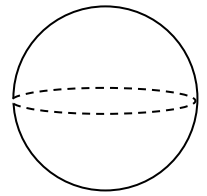
cylinder



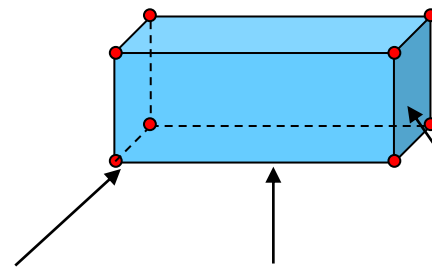
cuboid



pyramid



sphere

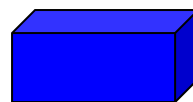


corner

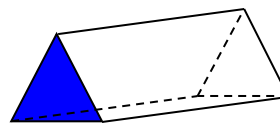
edge

face

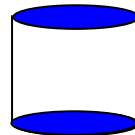
## 25 2D shapes on 3D shapes



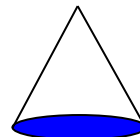
6 faces - all rectangles



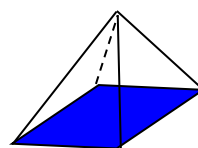
5 faces - 2 triangles  
- 3 rectangles



3 faces - 2 circles  
- 1 curved surface



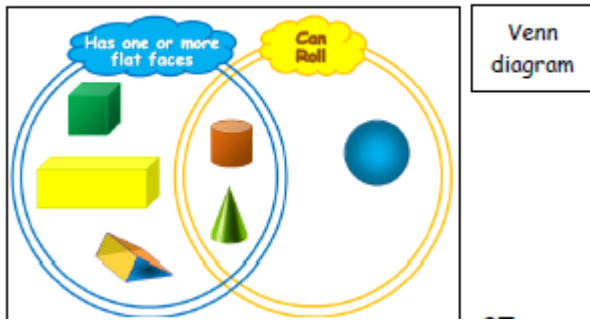
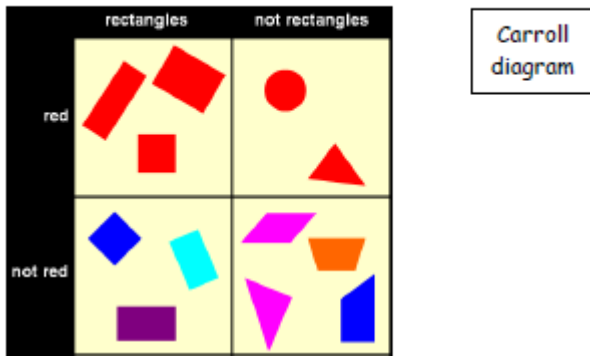
2 faces - 1 circle  
- 1 curved surface



5 faces - 1 rectangle  
- 4 triangles

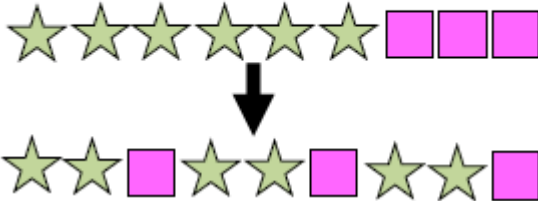


## 26 To sort 2D shapes and 3D shapes



### Sequence of shapes

Make these shapes into a pattern



## 28 Describe position, direction & movement

LEFT → RIGHT

ANTICLOCKWISE → CLOCKWISE



Clockwise (1 right angle) or  $\frac{1}{4}$  turn

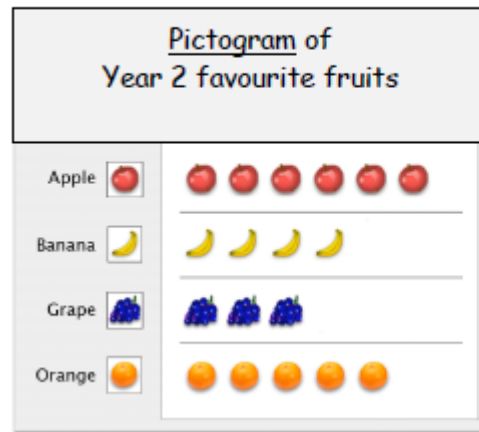


Anticlockwise (1 right angle) or  $\frac{1}{4}$  turn



Half turn (2 right angles)

## 29 Tables and graphs



### Tally chart showing animals in the zoo

| Animal  | Tally  | Number of animals |
|---------|--------|-------------------|
| Penguin | IIII   | 4                 |
| Lion    | III    | 3                 |
| Snake   | HHI I  | 6                 |
| Giraffe | II     | 2                 |
| Monkey  | HHI II | 7                 |

### Block graph to show animals in the zoo



### 30 Questions about tables and graphs

Example:

Questions about 'Animals in the zoo'

1. How many animals are there altogether?

$$4+3+6+2+7=22$$

2. How many more monkeys are there than lions?

$$7-3=4$$

3. What animal is there least of?

giraffe